Listing of Claims:

Please **amend** the claims as follows:

Claim 1 **(Currently Amended)** An isolated polypeptide ~~selected from one of the groups consisting of~~ which is:

(a) an isolated polypeptide encoded by a polynucleotide comprising ~~thesequence~~ the sequence of SEQ ID NO:1;

(b) an isolated polypeptide comprising a polypeptide sequence having at least 95% identity to the polypeptide sequence of SEQ ID NO:2; or

(c) an isolated polypeptide having at least 95% identity to the polypeptide sequence of SEQ ID NO:2~~; and~~

~~(d) the polypeptide sequence of SEQ ID NO:2 and~~

~~(e) fragments and variants of such polypeptides in (a) to (d)~~.

Claim 2 **(Currently Amended)** ~~The~~ An isolated polypeptide ~~as claimed in claim 1~~ comprising the polypeptide sequence of SEQ ID NO:2.

Claim 3 **(Currently Amended)** ~~The~~ An isolated polypeptide ~~as claimed in claim 1~~ which is the polypeptide sequence of SEQ ID NO:2.

Claim 4 **(Currently Amended)** An isolated polynucleotide ~~selected from one of the groups consisting of~~ which is:

(a) an isolated polynucleotide comprising a polynucleotide sequence having at least 95% identity to the polynucleotide sequence of SEQ ID NO:1 and which hybridizes to SEQ ID NO 1 under stringent conditions comprising at 42°C in a solution comprising 50% formamide, 5xSSC (150mM NaCl, 15mM trisodium citrate), 50 mM sodium phosphate (pH7.6), 5x Denhardt's solution, 10% dextran sulfate, and 20 microgram/ml denatured, sheared salmon sperm DNA; followed by washing the filters in 0.1x SSC at about 65°C;

(b) an isolated polynucleotide having at least 95% identity to the polynucleotide of SEQ ID NO:1 and which hybridizes to SEQ ID NO 1 under stringent conditions comprising at 42°C in a solution comprising 50% formamide, 5xSSC (150mM NaCl, 15mM trisodium citrate), 50 mM sodium phosphate (pH7.6), 5x Denhardt's solution, 10% dextran sulfate, and 20 microgram/ml denatured, sheared salmon sperm DNA; followed by washing the filters in 0.1x SSC at about 65°C;

(c) an isolated polynucleotide comprising a polynucleotide sequence encoding a polypeptide sequence having at least 95% identity to the polypeptide sequence of SEQ ID NO:2;

(d) an isolated polynucleotide having a polynucleotide sequence encoding a polypeptide sequence having at least 95% identity to the polypeptide sequence of SEQ ID NO:2;

(e) an isolated polynucleotide with a nucleotide sequence of at least 100 nucleotides obtained by screening a library under stringent hybridization conditions 50% formamide, 5xSSC (150mM NaCl, 15mM trisodium citrate), 50 mM sodium phosphate (pH7.6), 5x Denhardt's solution, 10% dextran sulfate, and 20 microgram/ml denatured, sheared salmon sperm DNA; followed by washing the filters in 0.1x SSC at about 65°C with a labeled probe having the sequence of SEQ ID NO: 1 or a fragment thereof having at least 15 nucleotides;

(f) a polynucleotide which is the RNA equivalent of a polynucleotide of (a) to (e);

or a polynucleotide sequence complementary over the entire length to said isolated polynucleotide of (a) - (f)

~~and polynucleotides that are variants and fragments of the above mentioned polynucleotides or that are complementary to above mentioned polynucleotides, over the entire length thereof~~.

Claim 5 **(Currently Amended)** An isolated polynucleotide ~~as claimed in claim 4 selected from the group consisting of~~ which is:

(a) an isolated polynucleotide comprising the polynucleotide of SEQ ID NO:1;

(b) the isolated polynucleotide of SEQ ID NO:1;

(c) an isolated polynucleotide comprising a polynucleotide sequence encoding the polypeptide of SEQ ID NO:2; ~~and~~ or

(d) an isolated polynucleotide encoding the polypeptide of SEQ ID NO:2.

Claim 6 **Currently Amended)** An expression ~~system~~ vector comprising a polynucleotide capable of producing a polypeptide of claim 1 when said expression vector is present in a compatible host cell.

Claim 7 **(Currently Amended)** A recombinant host cell comprising the expression vector of ~~an expression system comprising a polynucleotide capable of producing a polypeptide of claim 1 when said expression vector is present in a compatible host cell or a membrane thereof expressing the polypeptide of claim 1~~ claim 6.

Claim 8 **(Cancelled)**

Claim 9 **(Currently Amended)** A fusion protein consisting of the Immunoglobulin Fc-region and ~~any one~~ a polypeptide of claim 1.

Claim 10 **(Withdrawn)** An antibody immunospecific for the polypeptide of claim 1.

Claim 11 **(Withdrawn)** A method for screening to identify compounds that stimulate or inhibit the function or level of the polypeptide of claim 1 comprising a method selected from the group consisting of:

(a) measuring or, detecting, quantitatively or qualitatively, the binding of a candidate compound to the polypeptide (or to the cells or membranes expressing the polypeptide) or a fusion protein thereof by means of a label directly or indirectly associated with the candidate compound;

(b) measuring the competition of binding of a candidate compound to the polypeptide (or to the cells or membranes expressing the polypeptide) or a fusion protein thereof in the presence of a labeled competitior;

(c) testing whether the candidate compound results in a signal generated by activation or inhibition of the polypeptide, using detection systems appropriate to the cells or cell membranes expressing the polypeptide;

(d) mixing a candidate compound with a solution containing a polypeptide of claim 1, to form a mixture, measuring activity of the polypeptide in the mixture, and comparing the activity of the mixture to a control mixture which contains no candidate compound; or

(e) detecting the effect of a candidate compound on the production of mRNA encoding said polypeptide or said polypeptide in cells, using for instance, an ELISA assay, and

(f) producing said compound according to biotechnological or chemical standard techniques.

Claim 12 **(New)** An isolated polypeptide of claim 1, which has heparanase activity.

Claim 13 **(New)** An isolated polynucleotide of claim 4, wherein said polynucleotide encodes a polypeptide having heparanase activity.

Claim 14 **(New)** An isolated polypeptide of claim 1, (b) or (c) wherein said polypeptide is encoded by a polynucleotide sequence which hybridizes to SEQ ID NO 1 under stringent conditions comprising at 42°C in a solution comprising 50% formamide, 5xSSC (150mM NaCl, 15mM trisodium citrate), 50 mM sodium phosphate (pH7.6), 5x Denhardt's solution, 10% dextran sulfate, and 20 microgram/ml denatured, sheared salmon sperm DNA; followed by washing the filters in 0.1x SSC at about 65°C.

Claim 15 **(New)** An isolated polypeptide of claim 2, which is encoded by a polynucleotide sequence of SEQ ID NO:1.

Claim 16 **(New)** A process for producing a heparanase polypeptide, comprising:

culturing a host cell comprising a polynucleotide of claim 4, and an expression control region to regulate expression of said polynucleotide, under conditions suitable for the production of said polypeptide.

Claim 17 **(New)** A process for producing a heparanase polypeptide, comprising:

culturing a host cell comprising a polynucleotide of claim 5, and an expression control region to regulate expression of said polynucleotide, under conditions suitable for the production of said polypeptide.

Claim 18 **(New)** A process for producing a heparanase polypeptide, comprising:

culturing a host cell comprising an expression vector comprising a polynucleotide encoding a polypeptide of claim 1, which is capable of producing said polypeptide, under conditions suitable for production of said polypeptide.

Claim 19 **(New)** A process for producing a heparanase polypeptide, comprising:

culturing a host cell comprising an expression vector comprising a polynucleotide encoding a polypeptide of claim 2, which is capable of producing said polypeptide, under conditions suitable for production of said polypeptide.

Claim 20 **(New)** A process for producing a heparanase polypeptide, comprising:

culturing a host cell comprising an expression vector comprising a polynucleotide encoding a polypeptide of claim 3, which is capable of producing said polypeptide, under conditions suitable for production of said polypeptide.